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**From:** CN=Js Wilson/OU=DC/O=USEPA/C=US  
**Sent:** Tue 12/18/2012 2:34:35 PM  
**Subject:** Re: Fw: Wastewater Disposal Issues and ORD Study documents the agency released Dec. 11  
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I will be out of the office, but if we can't find a better day to meet, I could call in.

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**Date:** 12/18/2012 08:44 AM  
**Subject:** Fw: Wastewater Disposal Issues and ORD Study

It looks like we may need to talk soon about how we will all follow up.

Is anyone available Friday this week?

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 Date: 12/18/2012 08:25 AM  
 Subject: Wastewater Disposal Issues and ORD Study

Wanted to make sure all saw this, which touches on the study scope issues we recently discussed. Hope OW and ORD are following up. Once there's been more discussion, I like to reconvene to see where we are.

#### Daily News

#### EPA Urged To Expand Fracking Study's Focus On Wastewater Disposal Risks

Posted: December 17, 2012

Environmentalists are urging EPA to broaden its pending assessment of the risks posed by wastewater disposal from hydraulic fracturing, saying the agency's pending study on the risks posed by fracking to drinking water resources should be reviewing controversial disposal to underground reservoirs, where the majority of wastewater from the industry is disposed, rather than just the limited releases to treatment facilities that EPA is currently reviewing.

An EPA spokeswoman says that while the agency recognizes that wastewater disposal to underground injection wells is an important issue, it is not within the current scope of the study.

That research could eventually bolster environmentalists' calls to strengthen EPA rules governing underground injection of wastewater from oil and gas drilling operations, which is currently exempted from strict hazardous waste disposal requirements. During a recent series of discussions EPA is holding ahead of the interim report's release Dec. 17, environmentalists revived the question of what type of wastewater disposal issues the agency should be studying, according to an environmentalist familiar with the meetings. "People said [EPA] should be looking more broadly at how much waste" is being generated, as well as "where trends are going" for management and disposal of those wastes, the source adds.

The source says EPA officials acknowledged that the majority of wastewater -- at least 90 percent -- gets injected to underground disposal wells, but also that it was outside the scope of the current study, and that while it warranted further discussion, budget constraints would likely hinder the agency's ability to examine those impacts in the two-year study.

"With the current study, they're not really looking at that" but "there's interest in where the wastewater is actually going," the source says.

EPA and others suggested that the agency could seek to study potential impacts associated with disposal wells in the context of planned research it intends to do in collaboration with the departments of Interior and Energy under a pact outlining how the agencies would align research on environmental and safety issues related to fracking.

Many observers have long been concerned that produced water discharges from fracking operations contain a host of pollutants that are contaminating surface water resources.

But EPA's pending study on the risks posed by fracking to drinking water resources -- an interim version of which is slated for release the week of Dec. 17 -- is examining only whether there is inadequate treatment at municipal and industrial treatment facilities for wastewater from fracking.

#### Water Cycle Phases

EPA's study generally seeks to analyze five phases of the water cycle associated with fracking: water acquisition; chemical mixing; well injection; flowback and produced water; and wastewater treatment. The study is comprised of retrospective and prospective case studies at fracking sites, in addition to literature review, laboratory analysis and other types of research.

The agency Nov. 14-16 held roundtables on each of the five water cycle phases of its two-year fracking study, slated for completion in 2014, for the purpose of flagging issues for more in-depth discussions at an upcoming series of technical workshops.

The wastewater phase of the study, discussed during a Nov. 16 meeting, seeks to examine "What are the possible impacts of inadequate treatment of hydraulic fracturing wastewater on drinking water resources?"

Industry groups have questioned the need for the study to examine potential impacts associated with wastewater treatment processes. For example, America's Natural Gas Alliance said in comments submitted last May to EPA's Science Advisory Board panel that was charged with reviewing the study plan that the portion of hydraulic fracturing wastewaters that are processed through treatment facilities will continue to diminish. "Consequently, it would make little sense to focus limited time and resources on those questions."

But according to documents the agency released Dec. 11 and which were presented during the Nov. 16 meeting, the study is focusing on the efficacy of treatment processes because "discharge of treated wastewater to surface waters provides an opportunity for chemicals found in the effluent to be transported to downstream drinking water intakes." The study will also examine some treatment processes associated with reusing fracking wastewater, the documents say.

Environmentalists, however, say the study's narrow focus on treatment plants may address concerns in Pennsylvania and other eastern states where geologic conditions prohibit operators from injecting their wastewater underground, but it would not assess the risks of the more widely used disposal practice of injecting wastewater from fracking into underground injection control (UIC)

wells.

In the western United States, for example, produced water, the natural brine dredged up during fracking, and flowback, which refers to sometimes contaminated remnants of the water injected during fracking, are generally disposed of in UIC wells. Though wastewater disposal to wells regulated by EPA's UIC program is not used in all oil and gas producing states because of geological differences, it is generally regarded by the agency and industry as the preferred option for accommodating the massive volumes of waste produced by fracking operations.

But environmentalists say the disposal is not adequately regulated because the agency has long-exempted oil and gas wastewater from hazardous waste regulation. The result of the exclusion is that it has allowed the wells to be regulated as lesser-regulated Class II wastewater disposal wells, rather than more strictly regulated Class I wells.

Of particular concern for environmentalists is that the agency's UIC rules do not require permit writers to consider potential seismic risks when permitting Class II wells -- though a series of earthquakes tied to fracking wastewater disposal in Ohio has brought renewed attention to the issue.

To address this, environmentalists are petitioning EPA to eliminate the exclusion, which will force the wastewater to be disposed of in more strictly regulated Class I wells that require consideration of potential seismic risks, rather than as Class II wastewater disposal wells, whose rules do not currently require consideration of possible seismic effects.

#### Encana Fights Fracking Report

Meanwhile, oil and gas company Encana is reinvigorating its push for EPA to withdraw its landmark December 2011 draft report finding that the producer's Wyoming fracking operations likely contributed to groundwater contamination.

During a Dec. 6 call with reporters, Encana's David Stewart reiterated the company's previous criticisms of EPA's groundwater study, including that the agency's geological assessment of the Pavillion, WY, shale formation is flawed, that EPA used constituents in its monitoring process that could have contaminated the laboratory findings and that the agency failed to fully investigate palatability concerns of citizens living near the drilling site. Stewart referred to the study as "sloppy work in the field and in the lab," and said EPA and other agencies should halt any plans to conduct further tests from the agency-prepared monitoring wells.

An Encana spokesman previously told Inside EPA that the Wyoming study raises industry concerns about EPA's methodology for conducting the larger two-year study, saying "If this is the template for how they want to go about it, that's frightening."

The draft report represents the first time EPA has publicly indicated that the fracking injection process could have contaminated a drinking water aquifer, as opposed to poor cementing or other aspects of natural gas drilling. -- Bridget DiCosmo ( [bdicosmo@iwpnews.com](mailto:bdicosmo@iwpnews.com) This e-mail address is being protected from spambots. You need JavaScript enabled to view it )

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